WATER | ENERGY | LIFE



RPU 101

RIVERSIDE PUBLIC UTILITIES

WATER

ENERGY LIFE

A COMMUNITY UTILITIES COMPANY

Established in 1895, Riverside Public Utilities (RPU) is a customerowned water and electric utility governed by a board of nine community volunteers, and the City Council of Riverside, that provides high-quality, reliable services to more than 106,000 metered electric customers and over 64,000 metered water customers (serving a population of more than 300,000) in and around the City of Riverside.

We have more than 600 employees dedicated to providing reliable energy and water delivery services, and exceptional engineering, marketing and customer relations, and customer services.

Riverside is one of more than 2,000 cities in the United States that light up homes and businesses with "public power" – electricity that comes from a community-owned and operated utility. Additionally, we maintain local water resources that allow us to meet our customers' demands while being 100% independent from imported water sources.

Unlike privately-owned energy and water companies, public utilities do not serve stockholders; instead, our mission is to serve the needs of our "customer-owners." We measure success by how much we are able to invest within the City of Riverside.

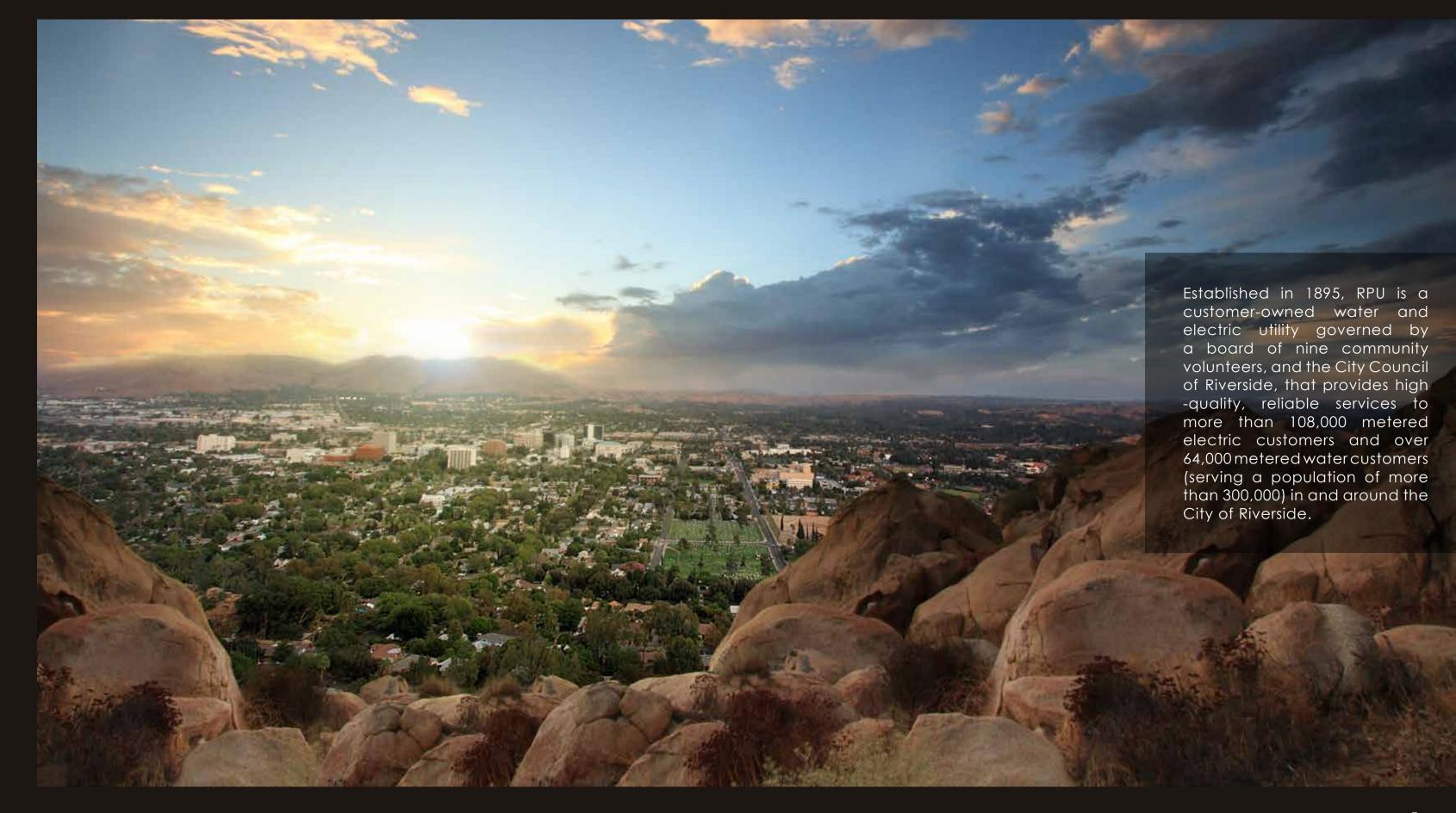
These investments include construction of water treatment facilities, local power generation plants and renewable energy projects, our conservation rebate programs, and valuable budget transfers to the City's general fund, which supports Riverside's parks and public safety departments as well as local development projects.

RPU is also committed to increasing the use of renewable energy resources and sustainable living practices that help reduce environmental impacts within the City of Riverside and the state of California.

OUR HISTORY

- **1870:** Riverside Colony established by John W. North and Dr. James P. Greves.
- **1871:** Upper Canal of Riverside Water Company began operation, supplying Riverside with water.
- **1879:** Water interests came under control of city and county governments.
- **1883:** Riverside incorporated as a city, making Riverside Water Co. the City's main water supplier.
- **1886:** Matthew Gage built Gage Canal to irrigate 5,000 acres north of the city limits.
- **1887:** Riverside Light Department founded to manage power coming from Charles Lloyd's hydroelectric plant being used for downtown street lighting.
- **1895:** City of Riverside established the Riverside Light Department, the forerunner of RPU. Riverside voters approved \$40,000 bond measure to add a steam generating plant to add 450 kilowatts (kW) of power.
- 1913: Voters approved a \$1.1 million bond to purchase the domestic service of the Riverside Water Co., Priestley Hall's Artesia Water Co., and Henry P. Kyes' wells on the Box Springs Mountains, establishing Municipal Water Utility.
- **1928:** Riverside's distribution system upgraded to 4,150 volts to reduce annual power loss from 20 percent to 9 percent.
- **1948:** Riverside Light Department installed Mercury Vapor Street Lights, which were three times more efficient than existing lights.
- **1955:** Riverside voters defeated California Electric Power Company's bid to buy the city's electric distribution system, re-establishing their preference for a public utility system.
- **1983:** Riverside established ownership interest in the San Onofre Nuclear Generating Station.
- **1995:** RPU celebrated 100 years of energy delivery service.

- **2000:** In the midst of summer energy crises, Board and Council approved new generation sources to be built within city's boundaries to avoid rolling blackouts for its customers.
- **2001:** First utilities-funded solar project, 150 kW carport structure at Utilities Operations Center, went online.
- **2002:** 40 megawatt (MW) Springs Substation power plant went online, providing city with peak energy and emergency generation within City's borders. Utilities set 1MW local solar generation goal.
- 2003: 100,000th electric customer connected.
- **2004:** \$8.5 million Riverside Canal renovations began.
- 2006: Riverside Water voted cleanest among 50 largest U.S. cities. Riverside Upper Canal received American Landmark Designation. 96 MW Riverside Energy Resource Center (RERC) power plant went online adding to city's local generation capacity.
- **2007:** August 31, energy utility provided record 602.7 MW of peak energy demand to customers. First ever Design/Build project, the John W. North Water Treatment Plant, broke ground.
- **2008:** City of Riverside obtained Recycled Water Permit for 41,400 acre-feet of water per year.
- **2009:** Riverside surpassed 1MW local solar generation milestone.
- **2009:** Emerald City designation by California Department of Conservation.
- **2011:** RERC 3 and 4 added additional 96 MW.
- **2012:** 5 MW solar generation.
- **2013:** Water Utility celebrated 100 years of serving the Riverside community.





WATER

Our water supplies come from underground sources fed by rain and snow falling in the San Bernardino Mountains and local foothills.

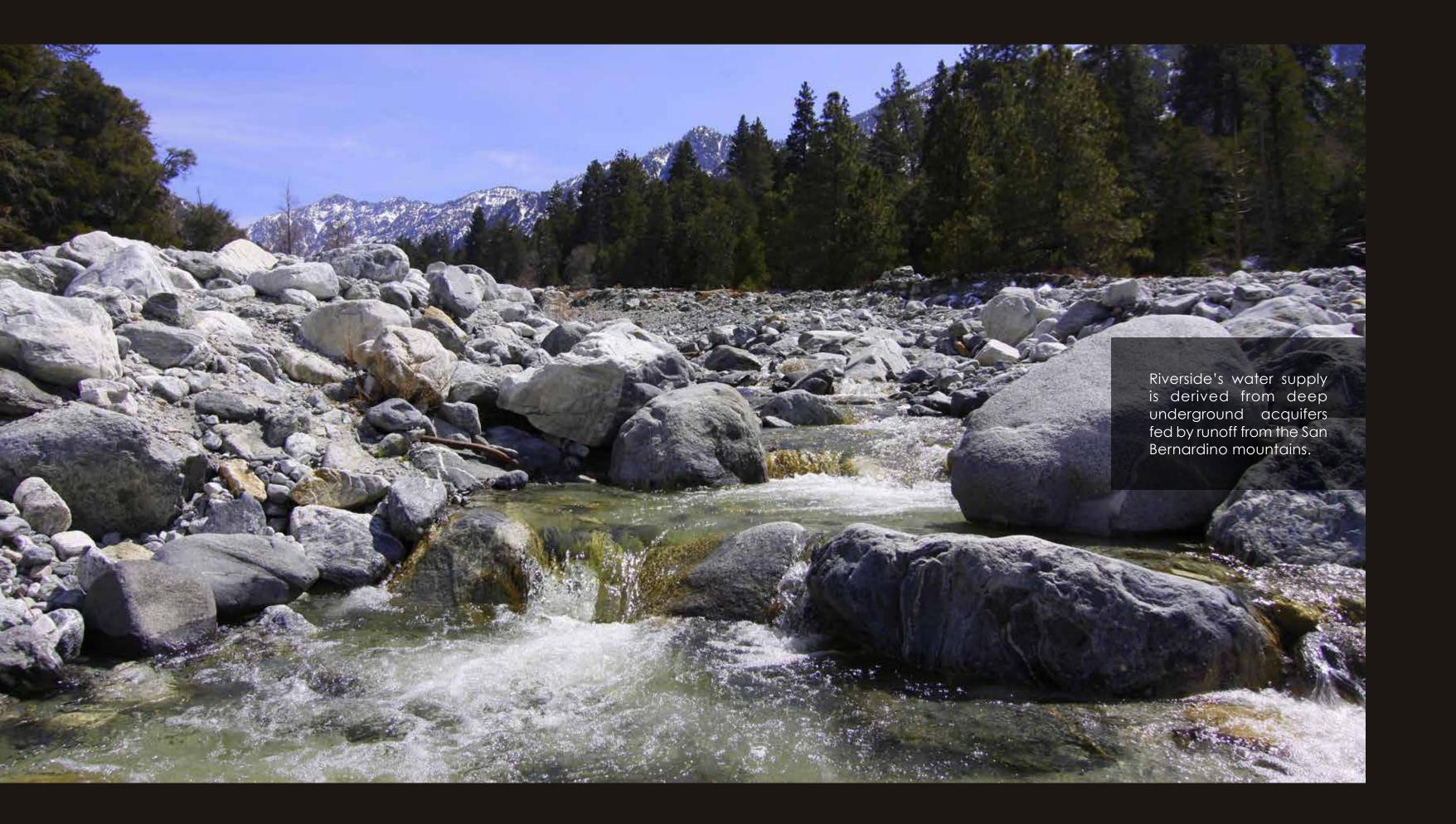
This supply is replenished by numerous storms each year. 100% of Riverside's water comes from these groundwater basins.

Wells continuously pump the water up from a variety of different aquifers located throughout the Bunker Hill Basin in San Bernardino, as well as the Colton and Riverside Basins.

Over the years, RPU has constructed facilities that have allowed us to wisely utilize our groundwater resources to become completely water independent.

This independence allows RPU to provide our customers with quality service at lower rates, as we are free from having to purchase highercost imported water supplies.







WATER

By having well fields located in a variety of areas, Riverside is not dependent upon one particular source of water. This helps to ensure that water demands can be continually met - despite any problems with wells or aquifer contamination.

In addition to this source diversity, RPU maintains a pipeline interconnection with nearby Western Municipal Water District that provides additional system reliability in the event of an emergency.

Each year Riverside's wells produce more than 26 billion gallons of water providing an average 71 million gallons per day, including peak demands of more than 110 million gallons per day.

In effort to ensure these supplies will continue to serve our customers' needs for the next 100 years and allow RPU to remain water independent, we have developed the Water Supply Plan designed to expand additional local water supplies in a cost-effective and sustainable manner.

For more information visit: **BlueRiverside.com**







ENERGY

For nearly 120 years, RPU has provided safe, highquality, and reliable generation, transmission and distribution of electric power for its customer-owners within the City of Riverside.

Energy division engineers, technicians, and field crews work diligently every day to oversee a variety of equipment and infrastructure that make this possible, including more than: 800 miles of underground distribution lines; 510 miles of overhead distribution lines; 22,840 power poles; and 14 substations.

For more than a decade, RPU has supported the construction of renewable energy projects that have helped the utility meet and surpass state-mandated goals for clean, green energy.







ENERGY

Electricity Supplies
Riverside receives its energy from a variety of sources including natural gas, coal, nuclear, biomass, geothermal, solar, wind, and hydroelectric power plants.

Additionally, RPU operates its own power plants within the city that provide extra energy in highuse months and during emergencies. These include four 10 MW natural gas-fired turbines at the Springs generation plant and four 49 MW natural gas-fired turbines at the Riverside Energy Resource Center. Resource Center.

The utility also owns and operates the Clearwater Cogeneration Power Plant in Corona, CA. The plant supplies 22 MW of energy from its naturalgas fired turbine and cogenerates another 8 MW of power by utilizing the heat produced by the gas-fired generator in boilers. These boilers in turn create the steam that powers a steam in turn create the steam that powers a steam turbine generator on site.





LIFE

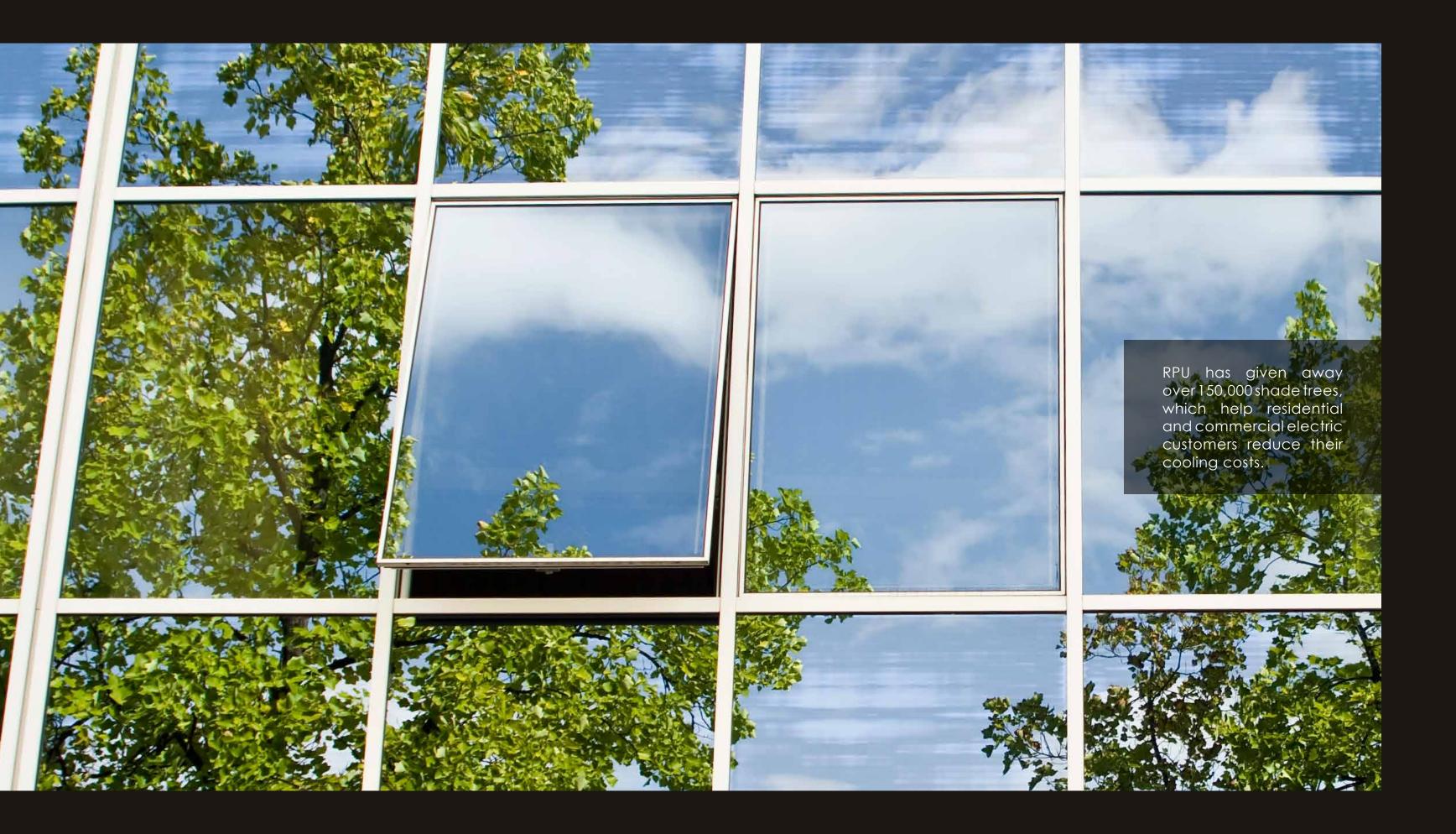
Municipal energy and water services have been an essential part of making Riverside a wonderful place to live and work. In addition to providing excellent services for our customerowners at low rates, we also give back to the community we serve through sponsorships and events, general fund transfers, and valuable rebate programs that help our customers make their homes and businesses more energy and water efficient.

Our Public Benefits programs have provided millions of dollars in rebates and incentives for ENERGY STAR® appliance purchases, weatherization efforts, residential and commercial solar projects, waterwise landscaping projects, shade tree planting and more.

Energy programs are funded through the state-mandated public benefits surcharges from electric bills. Water programs are funded by our Water Conservation and Reclamation Surcharge and in conjunction with the Metropolitan Water District and Western Municipal Water District. Complete details on our rebate and incentives programs can be found online at GreenRiverside.com.







OUR MISSION

RPU is committed to the highest quality water and electric services at the lowest possible rates to benefit the community.

OUR VISION

RPU will be recognized as a unique community asset with a global reputation for innovation, sustainability and enhanced quality of life.

OUR CORE VALUES

Safety / Honesty and Integrity / Teamwork / Professionalism / Quality Service / Creativity and Innovation / Inclusiveness and Mutual Respect / Community Involvement / Environmental Stewardship

OUR GOALS

In keeping with our commitments to provide high-quality services, low rates, and community benefits, RPU has established specific goals to fulfill our Mission and remain true to our Vision. These goals were established to address the utility's highest priority needs:

- Contribute to the City of Riverside's economic development while preserving RPU's financial strength
- Maximize the use of technology to improve utility operations
- Positively impact legislation and regulations at all levels of government
- Develop and implement a recycled water program
- Secure a second connection to the state electric transmission grid
- Employ state-of-the-art technology to maximize reliability and customer service
- Foster economic development and job growth in the City of Riverside
- Communicate effectively the accomplishments, challenges and opportunities for the full utilization of our electric and water resources
- Develop fully our low-cost, sustainable, reliable electric and water resources
- Enhance the effective and efficient operation of all areas of the utility

RPU GOVERNANCE

RPU is governed by Riverside's City Council and a Board of Public Utilities composed of nine volunteer citizens appointed by the City Council to four-year terms without compensation.

The board oversees the policies, operations, rates and revenues, expenditures, planning, and regulatory compliance relating to the water and energy utilities.

In addition to bi-weekly board meetings, members also serve on subcommittees to provide input on such decisions as: the development of new facilities and equipment, performance measures, programs to conserve energy and water resources, and appropriate technology to protect our water supplies and secure our energy resources.

The Board provides an ongoing, year-round citizen's review of all actions by RPU before any measures are sent to the City Council for final determination. Board meetings are open to the public and take place at 8:30 a.m. on the first and third Fridays of each month.

OUR EXECUTIVE STAFF

Girish Balachandran Public Utilities General Manager

Reiko A. Kerr

Administration

Kevin S. MilliganDeputy General Manager/Chief Operating Officer

Administration

Assistant General Manager - Customer Relations / Marketing

Michael J. Bacich Sustainability Officer, Programs & Services, Customer Relations, Marketing,

Customer Service, Field Services

Assistant General Manager / Chief Financial Officer

Laura Chavez-Nomura Finance, Rates, Budget, CIS, Utility Billing, Risk Management

Assistant General Manager - Resources

Power Projects, Contracts, Generation, Scheduling, Operations, Power

Planning, Marketing, Property Resources

Todd Jorgenson Interim Assistant General Manager – Water

Water Engineering, Water Field, Water Operations, Water Resources

Pat Hohl Assistant General Manager - Energy Delivery

Energy Delivery, Field Operations, Customer Engineering, Electric Operations,

Project Construction

OUR STAFFED FACILITIES

Clearwater Cogeneration Power Plant 2205 Railroad St., Corona, CA

Energy Generation / Cogeneration

Customer Resource Center (CRC) 3025 Madison St.

Customer Services - Water Resources Division

Gateway Building (Gateway) 3435 14th St.

Power Resources Division

Mission Square 3750 University Ave. 3rd floor

Administration Offices, Energy & Water Engineering

Services, Customer Relations / Marketing

Orange Square 3901 Orange St.

Customer Services, 311 Call Center, CIS, Finance

Riverside Energy Resource Center (RERC) 5901 Payton Ave.

Energy Generation / Projects

Springs Generation Plant (Springs) 2221 Eastridge Ave.

Energy Generation

Utilities Operations Center (UOC) 2911 Adams St.

Water & Energy Field, Water & Energy Meter Shops,

Energy Operations, Water Operations, Water Quality

UTILITIES DIVISIONS

RPU operates through the coordination of many different divisions. These include:

Energy Delivery Division

The Energy Delivery Division is made up of six groups: Contract and Asset Management; Customer Engineering / Geographical Information Systems (GIS); Energy Delivery Engineering; Substation Construction, Maintenance and Energy Control; Generation Facilities; and Transmission / Distribution Construction and Maintenance.

Contract and Asset Management - Manages the system assets of RPU's electric division including poles, underground structures, conductors, transformers, switches, and all other related equipment. Contract Management manages energy delivery construction work performed by contractors and developers for the City of Riverside. This group performs the engineering required for maintenance, repair, and rehab work as well as helping determine whether City crews or contractors will perform such work.

Customer Engineering / Geographical Information Systems - Provides engineering, design, and project coordination services for new electric services and upgrading of existing services, as well as mapping of utility electric facilities. Customer Engineering staff designs the necessary electric utility facilities and coordinates with other departments in completing an applicant's project. After construction, facilities are mapped electronically into a GIS database to serve as a master reference for operations, engineering, and facilities management.

Energy Delivery Engineering – This group is divided into four parts: Planning, Major Projects, Communications and Protection, and Substation Design. The Planning team is responsible for planning adequate transmission and distribution capacity to supply the needs of all electric customers. The reliability of service at a system level is reviewed and recommendations are made for improvements, which is eventually made into the Capital Improvement Program for Transmission and Distribution Projects.

Substation Construction Maintenance and Energy Control - Consists of construction teams that build additions to existing substations, maintain substation equipment (such as transformers and circuit breakers), and provide inspection services for substation projects by outside contractors. Another team within the group tests and maintains additions to substations, the 108,000 plus electric meters in the city, distribution transformers, and other distribution equipment. The utility dispatch center is also part of this group. They monitor and control the system, respond to customer calls, and dispatch field crews. This center runs 24-hours a day, 365 days each year.

Generation Facilities Group - Oversees the Springs, Riverside Energy Resource Center (RERC), and Clearwater Cogeneration electric power plants. The Generation Group is responsible for the operation and maintenance of all sites.

Transmission Distribution Construction and Maintenance – This group is primarily tasked with system constructs and maintaining the overhead and underground transmission and distribution electric lines that serve the city's energy customers. This group also provides electrical emergency response and maintains the city's street light system.

Finance

The Finance and Customer Relations Division is primarily responsible for the financial stability of Riverside Public Utilities and provides all aspects of customer service. The division is comprised of six groups: Business Application Management; Finance/Rates/Budget; Human Resources, and Risk Management.

Business Application Management - Responsible for billing and Customer Information Systems (CIS). To date, this group produces in excess of 100,000 bills monthly, generating greater than \$300 million in annual revenue. Additional responsibilities of this group include research and evaluation of Web-based customer

service technologies to enhance customer service, time and cost efficiency, and maintenance of systems interfacing with RPU billing and CIS systems.

Finance / Rates / Budget - Responsible for preparing and analyzing financial information to ensure the overall fiscal health of RPU. It is also instrumental in long-term financial planning as well as long-range resource planning. They provide periodic financial reports and critical financial data for Board review and approval. This group also develops annual revenue requirements taking into account all anticipated activities planned by executive management. They ensure appropriate rate structures for revenue requirements, determine the six year capital improvement program budgets, as well as internal overhead and cost allocation plans.

Risk Management - RPU's power transaction risks are identified, measured, and limited to ensure sound financial methods and practices. The Financial Risk Management Policy creates the framework, which governs Power Resources' wholesale power trading activities. Purchased power, which is well over \$100 million each year, represents a significant percentage of the Electric Utilities' budget. RPU's primary objective is to reduce the cost of power to its customers while maintaining reliability, efficiency, and safety of electric operations.

<u>Customer Relations / Marketing Division</u>

The Customer Relations / Marketing Division is responsible for all aspects of RPU's marketing, communication, media and public relations, and promotions, as well as: the creation and administration of public benefits programs and rebates; business customer services; Customer Service; Field Services / Metering.

Customer Relations (also known as Programs & Services or Public Benefits) – Responsible for providing support to residential and commercial customers. They perform on-site inspections and provide free energy surveys. Staff helps customers use available public benefits programs to make their homes and businesses more energy and water efficient. They are responsible for all aspects of receipt and approval of submitted rebate applications, including authorization of payment, and scheduling of inspections. This group also facilitates utilities' planning and funding of renewable energy projects.

Marketing – Responsible for creating internal and external marketing and advertising materials, including public awareness campaigns for water and energy utilities as well as citywide sustainability initiatives program. They create and distribute informative materials to customers about Utilities' projects, rates, updates, and public benefit rebate programs. They also prepare a variety of internal and external presentations and annual reports, and manage and update the Web and intranet sites for content. This group also administers employee loyalty programs, sponsorships, special events, promotions, Back of Bill newsletter and bill insertions, annual bottled water distribution to schools and non-profit organizations, and school education programs.

Customer Service - Provides the first point of contact for residential customers in Riverside. They handle approximately 347,000 calls and 224,000 walk-in customers annually. Customer service supports requests for electric, water, sewer, and sanitation services as well as credit and collections, write offs, UTILICARE (medical assistance), SHARE and HEAP (low-income assistance), as well as payment option programs such as the Level Pay Program. They also take calls for street light repairs, dispatch emergency calls, and oversee the City's 311 call center for non-emergency calls and emergency referrals. Customer Service operates out of the Utilities Plaza at Orange and Fifth Street as well as the Customer Resource Center on Madison six days a week.

Field Services / Metering - Responsible for the physical initiation of services, reading of electrical and water meters, investigation of diversion of services, and delivery of 48-hour shut off notices for non-payment. Each fiscal year, this group conducts over 1.9 million meter readings, processes over 95,000 service orders for service initiation or termination and delivers an average of 100,000 48-hour notices.

Resources Division

The Resources Division is responsible for procuring maintaining and managing the utilities' water, wholesale power, renewable power, and real property resources. To manage these responsibilities, the division has six groups: Power Planning / Power Marketing; Power Projects / Contracts / Settlement; Power Resources; Power Scheduling / Operations; Real Property Resources; and Water Resources.

Power Planning / Power Marketing - Responsible for assessing both the short- and long-term power needs of the utility. The Planning/Marketing group is also responsible for coordinating Riverside's commitment to being recognized as a "green city."

Power Projects / Contracts / Settlement - Responsible for the management of RPU's generation and transmission projects as well as negotiating and administering the RPU's power-supply related contracts and tariffs. They also actively participate in all federal regulatory, legal, and electric market redesign activities affecting RPU's power supply interests. The Projects group is responsible for managing RPU's interest in interstate transmission facilities as well as its joint participation with other agencies in generation assets. The Contracts group negotiates and implements long-term resource agreements and administers over two hundred existing power supply related contracts and tariffs. The Settlement group reviews all power supply transactions after the fact in order for payment or invoicing to occur.

Power Resources - Responsible for procuring, developing, managing, and marketing RPU's wholesale power and interstate transmission resources to serve Riverside's citizens with reliable electricity.

Power Scheduling / Operations - In order for RPU to receive the power provided by the resources in its portfolio, the energy output from those sources must be reported to or "scheduled" with the Independent System Operator (ISO) and any other entities affected within the boundaries of the Western Electricity Coordinating Council (WECC). They are responsible for the scheduling of RPU's power supply resources to meet the needs of utility customers. This group also provides the Settlements group information necessary for billing or payments to occur.

Real Property Resources - Responsible for the utilities' interest in over 100 parcels of property. Many of these parcels are currently unused, but their use is anticipated due to future plans for annexation and expansion of the utility infrastructure.

<u>Water Division</u>

The Water Division is made up of four groups: Engineering; Water Resources; Water Field Operations; Water System Operations.

Engineering - Responsible for all long-range facility planning, budgeting, grant writing, design, construction, management, and mapping/archiving of construction-related documents. Also handles coordination of all development-related activity and infrastructure.

Water Resources - Responsible for estimating future water demands, developing cost effective water supply alternatives, preparing environmental documents for the new supply sources, managing, and safeguarding the quality and quantity of the City's water resources. This includes collecting, analyzing and maintaining groundwater information from the entire watershed.

Water System Operations - Responsible for production and distribution of domestic, irrigation, and recycled water to meet the daily demand of the water system. This section maintains all the assets necessary to produce and deliver water to the City's customers effectively and efficiently. This includes ensuring optimal water supply management and storage for maximum day and emergency demands. This section is managed through four Units: Operations; Water Quality and Record Keeping; SCADA; and Maintenance.

Water Field Operations - Responsible for the construction and maintenance of water transmission and distribution systems. The Administration section of this group is responsible for the coordination of daily planning, supervision, and general administration for construction and maintenance. The System Construction section is responsible for water main replacements, system connections, fire hydrant installations, and installations of new and replacement water services. While the Maintenance section maintains the existing transmission, distribution, and irrigation/canal systems. The Meter Shop installs, replaces and maintains water meters, as well as tests new and existing meters for accuracy.



Riverside Public Utilities, 3750 University Avenue, 3rd Floor, Riverside, CA 92501 951-826-5485, RiversidePublicUtilities.com, Twitter: @RPUnews, Facebook: facebook.com/RiversidePublicUtilities

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